THE FARM SECURITY ADMINISTRATION DENTAL PROGRAM OF RANDOLPH COUNTY, GA.*

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PURPOSE OF THE STUDY

In December 1944, 20,543 farm families in the United States belonged to dental-care units organized on a voluntary prepayment basis under sponsorship of the Farm Security Administration. These group programs were started for the benefit of Farm Security Administration borrowers, who are families with low cash income, struggling to establish themselves as independent farmers, either renters (Rural Rehabilitation borrowers) or owners (Farm Ownership borrowers). Medical care programs had been set up as early as 1936, and at first dental service was given only when recommended by a physician. Soon, however, it was realized that more comprehensive dental care (to be determined by dentist rather than physician) was needed, whether offered with medical care in one general group health unit or in a separate unit. At present, most of the dental programs have their own funds and memberships.

In the early days of organizing the FSA dental units, the scope of the individual program was determined largely by these two necessities: Limiting the services to emergencies and keeping their cost within the ability of families to pay back the loans obtained for this and other farming and living expenses. The programs provided at first only extractions, then they expanded their coverage by including cleanings, treatments, and "simple fillings." Gold work and dentures were thus excluded.

Early in its experience, the Farm Security Administration became aware of the desperate need for dentistry for rural children and began to emphasize the provision of such service. Recently the following objectives have been considered, or added in some cases, in order to improve the dental programs:

(1) "Saving teeth" by placing a filling rather than extracting.

(2) Establishing a maintenance program after accumulated needs have been cared for.

(3) Increasing the amount of money for dental care, to provide as complete service as possible.

Nevertheless, the trend of organization, people served, and kind of service given in a typical county dental program were unknown, the regional and county staffs having been freed as much as possible from close Federal supervision and investigation. Just how close was the program approaching its objectives in dental care for different age groups and different income groups? What did the members and the dentists think of the program, for example, in regard to size of fee and percentage of payments? Many such questions finally were grouped into the following three large ones by staff members of the Health

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* This report is the eighth in a series of rural health reports covering the activities of medical and dental prepayment plans among rural families. The studies are under the general direction of Douglas Ensminger, Bureau of Agricultural Economics, U. S. Department of Agriculture.

Other studies in the series are:

1. Taos County Cooperative Health Association, 1942–43, Taos County, N. Mex.
2. Newton County Agricultural Health Association, Newton County, Miss.
3. Cass County Rural Health Service, 1942–44, Cass County, Tex.
4. Hamilton County Medical Aid Association, Hamilton County, Nebr.
5. Nevada County Rural Health Services Association, Inc., 1942–44, Nevada County, Ark.
6. Walton County Agricultural Health Association, Walton County, Ga.
7. Wheeler County Rural Health Services Association, Wheeler County, Tex.

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Services Division of the Farm Security Administration and the Bureau of Agricultural Economics:

(1) Have the dental programs achieved their purpose in dental care?

(2) What factors have assisted or prevented the full functioning of the program?

(3) What suggestions and recommendations can be made regarding future policies?

With limited funds, time, and personnel with which to make such an appraisal, it was decided that no detailed survey of all or even a large sample of the 250 FSA dental units could be undertaken, especially since first-hand information was needed. Therefore, an intensive study of one representative county was undertaken in May 1945.

THE COUNTY SELECTED

Randolph County, Ga., was chosen because of the following characteristics:

(1) It is an agricultural county, with fewer than 500 people employed in lumber, wood pulp, and its other very minor industries, out of a population of 16,609 in 1940; with an agriculture reasonably representative of its region.

(2) In 1939, 66 percent of Randolph's farms made less than $600 gross income, that is, total value of farm production. Thus the rural people have a background of income inadequate to cover usual medical and dental costs as well as other expenses; and although there has been an increase of income during the war, the area is not fertile enough and the agriculture not sufficiently mechanized to produce heavily and yield steadily a higher income. The FSA case load of 191 families in May 1945 was quite high, also indicating continued need and a potentially large membership in the dental association.[1]

(3) The dental unit is one part of a general health program, but its funds are maintained and administered separately from those of the medical unit. It is currently functioning, hence a part of present experience, not something remembered from the past, and is likely to continue, so far as outsiders could tell before studying the program.

(4) The FSA supervisory personnel in the county was known to be favorable and cooperative toward fact-finding research.

Randolph County is not submarginal or even marginal but on the other hand it is not highly productive. Its partially depleted red clay soil, erosion, and rather scrubby second-growth timber are typical of a large area in the Southeast. But it is not a typical cotton-growing county, for it has moved during the past 20 years toward a southeast variant of diversified farming. Cotton was dominant until peanuts were introduced 20 years ago.

Today the three big crops are corn (much of which is consumed on the farm), peanuts and cotton. Cows are kept for home milk consumption and hogs for the home meat supply.

The farm unit of the individual sharecropper or renter is larger than in many parts of the Southeast and often includes woodland, blackberry patches, and a pasture as well as cropland. Although 29 percent of the county's individually operated farm units were, in 1940, in the "40 acres and a mule" class (specifically 30–49 acres), at the same time 23.6 percent were in the 50 to 99 acre category. The average size of farm was 97.3 acres.

The county has a fundamental Old-South stability despite a gradual change away from a typical cotton economy. Its plantations are not large businesses, with absentee owners, paid managers, and the tenant and labor uncertainties of corporation farming. Most people in all classes seem to have a feeling of stability, although some aspects of share cropping such as dependency and little production for home use are present. Another evidence of local cohesiveness and stability is that all the physicians and dentists now practicing in the county, the FSA farm supervisor, and most other Federal and State employees are old residents. In many ways the county can be typical of any of the older rural areas in the United States.

Of the 1,952 farm operators in Randolph County, 62.6 percent were Negro according to the 1940 Census of Agriculture. Of the same number of operators,

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[1] Families are large which further reduces the amount available for the support of each individual. The FSA records show an average of 5.8 persons per family for the families belonging to the dental association. This figure, high as it is, still is an understatement. So many young unmarried people have left home during the war—some of whom will return—that the average size of family must be considered as more than 6 persons.

1,138—or almost 59 percent—were sharecroppers, 27.9 percent of the white farmers and 76.4 percent of the nonwhite.

Most houses of the low-income farmers are very old, weather-beaten, and often lopsided; their furnishings are meager and usually old-fashioned. Although a drive around the county shows evidences of poverty and backwardness, it also reveals new elements that have come both with and without Government assistance. For example, peanut cultivation has fostered mechanization of farm cultivation, a process just begun and sure to continue. Soil-conservation practices are general. With the increased farm income of the war years, the people are planning further improvement of their farms.[2]

In the future, there may be fewer people on the land, and there probably will be a higher level of living. There is, however, an accumulated need for modern goods, accumulated not during the past 5 years but during 25 years or more, so that there will be many demands for the increased cash of the family, and dental care still may be relatively neglected. The farmers probably will remain for some time very "rural," picking up the goods and ways of town people in a hit-and-miss way but lacking a full range of modern facilities and protections of health.

Old and new ways are intermingled strikingly. The culture seems full of anchronisms. Whooping cought and typhoid "shots," rural ice delivery, field terracing, and lighting by the Rural Electrification Administration are found on some of the same farms and in the same families as faith doctoring, barefooted women in the fields, and a diet of hoecake and salt pork. Although the exact elements vary from place to place, this uneveness of advancement (both technical and social) typifies many rural counties besides Randolph.

Regarding health, there are not only new specific elements but two relatively new organized health programs, the county health department, under the Georgia State Department of Public health, and the medical and dental care associations under the sponsorship of the Farm Security Administration.

County health department

Service free to any patient in the county, Government subsidized.

No choice of medical personnel.

Service given at public clinics and, for school children, at the schools.

No corrective dental program.

Service given in these types of cases: Diagnosis of tuberculosis and recommendation for hospitalization, venereal disease diagnosis and treatment, hookworm diagnosis and treatment; immunization: smallpox, typhoid, diphtheria, whooping cough; prenatal instruction at prenatal clinic; training of midwives.

FSA health program

Patient pays an annual fee, membership limited to FSA borrowers, no Government subsidy.

Choice among physicians as all doctors in the county but one participate in the program.

Service in physicians' offices, emergency home calls.

For dental service, same as above, except home calls. (Service outlined elsewhere.)

Service given within the following limits: General medical care; emergency operations, including charges for surgeon and hospital; serums in case of emergency, as for snake bite; up to $35 of the standard $50 maternity fee paid (and hospitalization if emergency); maximum $10 midwife fee; first filling of each prescription in every new illness.

This county is better off than 40 percent of the counties of the United States in having a county public health unit; that is, only 60 percent have any such service. It is also better off than 40 percent (not necessarily the same counties) in having a hospital. It has a 50-bed private hospital of good reputation. It has 6 physicians and 2 dentists for a population of approximately 15,000. The death rate is a little higher than that of the whole State, but the infant mortality rate is lower than Georgia's rate, according to the 1940 Census of population.[3] However, debilitating infections, parasites, and deficiencies, such as hookworm infestation, still are common and a retarding influence in daily life even if not fatal. In this class of ailments are the dental conditions.

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[2] According to the 1940 Census of Agriculture, Randolph County's approximately 2,000 farms had only 54 tractors, 71 telephones, and 503 automobiles.

[3] Crude death rate for Georgia, by place of occurrence: 10.4 per 1,000 enumerated population; for Randolph County, 12.6. Infant death rate (under 1 year of age) for Georgia, by place of occurrence, 57.9 per 1,000 live births; for Randolph County, 51.4.

PROCEDURE OF THE STUDY

In the limited time available for field study, only a sample of the current membership of the dental unit could be studied in regard to present dental condition, services received, and attitudes toward the FSA dental program. Accordingly, 41 of the 74 currently participating families were selected on the basis of size of family, race, and income. They varied in size from 2 to 13 members, in gross income (1944) from $300 to $2,800; 21 families were white, 20 Negro.

Use of a "control group" of families who were not and never had been participants in the dental program was thought necessary to the validity of the study, and 20 such families were selected under the same criteria as the members.

Since the study was designed to employ mouth health as one measure of the program's effectiveness, the condition of all family members' mouths (in the sample) was noted and recorded by a dentist. This was done in visits to the homes, with an attempt to do as good a job as possible under daylight—always outdoors—by use of a mouth mirror and explorer. The caries incidence is underestimated because cavities between the teeth in many cases were not detected.

An interviewer accompanied the dentist on these home visits, talking with one or more members of the family in an informal way but attempting to cover the same questions for all families. Occasionally, notes were taken in their presence if they seemed sufficiently at ease. After the visit, their statements were recorded as exactly as practicable on a questionnaire which was used more as a guide than as a fixed instrument.

All families were courteous, permitted the examination, and responded as honestly and freely as could be expected in a somewhat strange situation. It is thought that, as a group, they gave well-considered, sincere answers.

A third person at the same time was obtaining background cultural data and information on the administration of the dental progrm. In this work also courtesy and helpfulness were the rule.

APPRAISAL OF RANDOLPH COUNTY DENTAL PROGRAM

Organization and administration

So that the Farm Security dental programs could be adapted to local needs and to avoid complete centralization of authority, no set rules for organization and administration have been formulated nationally. Farm Security Administration does have a general policy of making possible a family's participation in a dental or medical program, by working out with each family a plan of farm and home production and expenditures and when necessary, including in the loan to the family the amount of its annual health membership fee. Thus FSA makes sure that the family can belong to a medical or dental unit, or both, if the family wants to belong. Aside from such general policy, the contribution of FSA staff from national to county level is impetus and guidance in the establishment of local health units and some supervision of their progress, by the field medical officer of each administrative region.

As no one form was specified, the degree of organization of members, for example, has varied considerably. Some units are formal associations while many are not associations at all. However, in this and other respects they generally conform to a pattern characteristic of each administrative region of FSA.[4]

In region V (Alabama, Florida, Georgia, and South Carolina), the following elements characterize most of the health programs:

(1) Dental programs have been in operation 5 years or more.

(2) The FSA case load has continued higher than in any other region, indicating continued heavy need for health services, along with many other needs. This high case load also means many families eligible for a dental association, hence potentially, and in most cases actually, large enough membership in each unit to maintain a program on the same basis over a period of years.

(3) The dental units are representative of those that have gone just beyond a strictly limited or emergency service, now generally providing extractions, treatments, cleanings, and fillings but not complete dental care including X-ray, replacements of teeth, and orthodontia.

(4) In many units now, special emphasis is supposed to be given to protective dental care for children.

The FSA dental plans in Georgia have followed rather consistently one Statewide pattern since their beginning in 1938. Services offered are the same funda-

[4] For a fuller statement, see Dental Care Program of the Farm Security Administration, report from the Health Services Division, FSA, July 1944.

mental four mentioned in (3) above. Annual participation dues usually are $3 for husband and wife plus 50 cents per child. Maximum annual dues per family are usually $7. Dental services at these rates and with the services and characteristics listed above have been available to FSA clients in Randolph County since January 1941. The objectives set at the beginning of the program were (1) to remove mouth infections such as pyorrhea by extracting teeth and giving treatments, (2) to save teeth by filling them, and (3) ultimately to establish a maintenance program.

An informal arrangement was made with the two dentists in the county seat by which they undertook to furnish the prescribed services to members at what were apparently their regular fees although no written scale of fees appears ever to have been adopted. Hence this is referred to as a fee-for-service plan, the most common type and the one closest to everyday private practice. A few FSA dental plans have other methods of payment.

The two dentists cooperating in the program are the only ones in the county, two others having moved away within the past 10 years. (One of these had practiced only half time.) The population of Randolph County, estimated as of November 1943, was slightly over 14,000. In addition, these dentists are depended upon by sizable numbers of people from other counties, with the result that they must each serve more than 7,000 potential patients.

One of the two dentists has done more than three-fourths of the work for program members, for reasons having nothing to do with the administration of the program, principally the reason that this dentist spends more time on his practice. Both dentists have farming interests which take part of their time; both apparently would welcome a younger dentist in the county. The office equipment of each is clean and adequate except that equipment in the operating rooms for Negroes is inferior to that for the whites. This is characteristic not merely of Randolph County but of the culture of the area. The program sponsors have accepted available personnel, equipment, standards, and scale of charges, and have made their first—and so far, their only—attack on the problem of adequate dental care for low-income farm people by introducing the group prepayment principle rather than by setting new standards or making other changes.

Of 217 eligible families in 1941, 192 families, containing 1,199 persons, were enrolled in the new dental unit. The next year was the peak year so far as membership was concerned, 215 of the 223 eligible families being included, with a coverage of 1,269 individuals. The membership has declined steadily to its present size (May 1945) of 74 families, containing 387 persons; 36 families are Negro. No new families have joined in 1945, and no Negro families have joined for 2 years. Even so, the enrollment relative to the total number eligible has been high in this county; 68.2 percent in 1944, compared with 40.4 percent, the average among all fee-for-service dental programs in Georgia. It dropped to 44.3 percent in Randolph County in 1945, but this is still high in comparison with other counties.

The following causes of the decrease in membership are suggested:

(1) The FSA loan program as a whole has decreased from 217 to 191 eligible families since the dental program was started in 1941.

(2) As families, especially the older ones, have had teeth extracted or have satisfied otherwise their most urgent dental needs, they have dropped out of the dental association. This leaves a residue of members with obvious and continuing large dental needs. Thus the program is adversely selective.

(3) A few people had joined because the FSA county supervisor made a strong plea that they should belong and because almost all other borrowers were joining, but have since made individual decisions on various personal grounds without regard to arguments made by the program sponsors.

(4) Some have been actively dissatisfied with the program.[5]

There is no organization of members with board of directors, committees, or other positions of responsibility held by members. At the annual meetings of Farm Ownership and of Rural Rehabilitation borrowers (held separately and both attended by Negroes as well as whites), the medical and dental programs have been discussed. However, with crop acreages, farm equipment, and many other urgent matters also to be discussed at these meetings, the farmers usually give little attention to the health program. The county and home supervisors have given it much personal interest and effort, but it has had little attention from any other source. Moreover, administrative procedures have been poorly

[5] As those who had dropped out of the dental unit were not interviewed, the exact number in each of these last 3 groups is unkown.

defined or irregularly followed. For example, membership cards have not been kept up to date, and regular procedures of submitting, approving, and paying bills have not been worked out.

The dental care program is known as "separate" since it maintains a membership roll and fund separate from the medical program. In other words, a family can join either or both.[6] A trustee, who receives for her services 3 percent of both funds, handles the finances and other routine administrative matters.

In 1944 the average annual dental membership fee per family was $4.56, compared with a $4.64 average for all Georgia fee-for-service dental units and a $5.02 average for the United States. The funds are prorated for the months of the year, one-twelfth of the total sum being allocated for the payment of bills each month. If dentists' bills submitted in any month do not equal the allotment, the surplus is kept until the end of the year. If the charges exceed the allotment, payments are scaled down to it, the dentist receiving only the resultant percentage of his submitted bills.

Although all record-keeping by dentists and trustee has been haphazard, one thing is clear: There has been a surplus at the end of each year except one, after nearly 100-percent payment to the dentists and some money apparently held as a reserve. Except for the small amount at the end of 1944 which was added to the 1945 fund, these surpluses have not been disposed of.

Do they indicate that the membership fees are too high, that the members have received full care within the defined limits of the program and that there still is a surplus of money? Unfortunately, the people have not received the basic care that they need, as shown by the dental examination made in this survey, the fees are not too high, and so another explanation of the surplus must be found. However, before dental needs and services are evaluated, the organization and administration of the program is appraised as follows:

On the strong side:

The program has included all available dental personnel and facilities of the county.

The Farm Security Administration has made possible the joining of all those who want to belong, by (1) keeping membership dues within the ability of the families to pay, (2) setting up the health unit on the group prepayment principle, and (3) recognizing dental need by its inclusion in the farm and home plan and loan.

It has enrolled more than half of the FSA borrowers up to, but not including, the present year. (But with no new members and with a decrease in old members, its future is uncertain.)

Payment to the dentists has been excellent.

On the weak side:

There is no clearly defined responsibility for the operation of the program.

There is no written agreement between FSA and dentists or between the dentists and the members, and no written fee schedule.

Recording-keeping is poor.

Dental service

The only service for some age groups and the principal service for all ages has been extraction of teeth. There has been no entrance examination for members so that the dental condition at the start of the program and of each family before joining is unknown. However, from a dental survey of Randolph school children in 1938, a dental survey of FSA families in a similar county in southwest Georgia—Worth County—in 1939, and from sample nonmember families examined in the present study, there are indications that the average rural person (all ages) had four carious teeth, one of them showing advanced decay and perhaps even being abscessed, and that nearly half of all adults beyond 25 years had advanced pyorrhea. White children under 20 years each had five carious teeth and Negro children had an average of 2.5 on the same basis of estimation as the above.

Today the examination of the sample member families suggests that although there have been many extractions because of pyorrhea, the proportion of people needing full extractions for this cause has not decreased. In any case, 50 percent of the total of members examined in the age group 25 years old or older who still have some teeth, need full extractions. The usual process of pyorrhea apparently is occurring in the middle-age group so that as some older people obtain extractions, others become eligible for them. The young adults from 20 to 34 years show a more hopeful dental condition. They have significantly fewer

[6] In May 1945, of 74 families in the dental unit, only 4 were not also members of the medical unit; 19 families belonged to the latter but not to the dental unit.

caries than the children and adolescents and do not show—at least not yet—the gum conditions of the older people. Probably they can be prevented from developing such conditions. However, few prophylaxes and treatments have been given.

Among members the caries rate (not "total caries experience") is now three decayed teeth per person for whites and 2.4 for Negroes of all ages, which probably is a slight decrease among the members within the past 5 years, although such decrease is not proven beyond doubt since the rate in 1941 is not known exactly. White children under 20 years show no better condition in comparison with the figures for all the children, both white and Negro; but when compared with the non-FSA white sample alone, they are better. Even so, children of the sample member families still have much uncared-for tooth decay. Also, the total sample of members (that is, all ages) is not much different from the nonmember sample. The greatest difference is the number of abscesses; they are more numerous among nonmembers.

On the assumption that the incidence of tooth decay has remained the same in the past 5 years, a decrease in caries (present upon examination) of even one carious tooth per person would mean that caries has been eliminated at that rate, by filling or extraction. However, members have obtained fillings at a rate of only 0.3 per person;[7] and there is no indication that there has been a rate of one extraction for caries per person. (The dentists have not kept records of exact work done for each member, hence the evidence must be taken from mouth examination, with its many limitations such as confusion of dental work done before and after a person joined the dental group.) It is true that members have had more than four extractions per person, but most of these have been because of gum conditions. The conclusion, then, is that if there has been any decrease in the caries rate, probably it is a decrease in basic occurrence (incidence) of decay, rather than through professional care.

Seventeen families, 23 percent of the current 74 member families, have received no service (apparently not having sought any) in the past 2⅓ years, although oral examination revealed that several of these families have urgent needs in both caries and pyrorrhea. While this figure (23 percent) probably is not high compared with the proportion of the general rural population not getting dental care in this period, the lack of care in the Randolph County group is less excusable than in the general population since dental service has already been paid for by the families.

The general conclusion on the basis of the examinations is that the program has accomplished something by reducing the number of cases of abscesses and other extreme conditions of neglect, but has not given full service even up to its defined limits.

The service also has not been distributed evenly between the two races and among all ages, income groups, and sizes of family, figured on fee value of service rather than type of service.[8] White members as a group have received a monetary value of service greater than the amount they have paid into the dental program whereas the Negroes have received less than the amount of their dues; and it cannot be argued justifiably that the Negroes' dental need is less. Although Negro children have less caries than white children among both FSA and non-FSA samples examined, Negro adults show worse oral conditions than do the white adults. The greatest adverse service difference between Negro and white members is in the $651 to $1,050 annual gross income bracket although there is a disadvantage for the Negroes in all income brackets. For both races, families in the middle-income range of $651 to $1,450 have been getting more dental care than either those below or those above, figured on either a family or individual basis.[9]

In regard to size of family, the small white families of 2 to 4 members have been getting, as a group, 32 percent of all service given on the FSA dental program. In other words, a group comprising only 14.7 percent of individuals belonging to the dental unit received nearly one-third of the care (by value rather than type of service, one must remember). The next highest group consists of the Negro families with 8 or more in each family, which received a

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[7] Fillings for whites, 0.6 person; for Negroes, almost none, 0.05 per person.

[8] The computations on distribution of service are made from the dentists' and trustee's monthly records from January 1, 1943, to April 30, 1945. Because in most cases only the patient's name, family, and the fee charged were recorded, specific services could be figured only on this basis.

[9] Families have been grouped into 4 brackets according to gross income for 1944: $250 to $650; $651 to $1,050; $1,051 to $1,450; $1,451 and over. Regarding size of family, they have been grouped as follows: 2 to 4, 5 to 7, 8 or more members.

total of 25 percent of the service. If again one considers the individuals included in these families rather than the number of families, one finds that a group totaling 32 percent of the members received only 25 percent of the service.

Finally, children have been grossly neglected, especially in the care of deciduous teeth, in which rampant caries was found.

In regard to dental care given, the Randolph dental care program can be appraised in summary as follows:

It has provided many extractions for older adults, this being the principal service.

It has provided enough extractions for all ages to remove most of the abscessed teeth.

Pyorrhea is getting dental attention, but by extraction of all the teeth rather than by treatment of the gums.

Members have received very few fillings.

Evidently few have had their teeth cleaned, although this is not so easily verified as the number of fillings.

The service has been unevenly distributed, with the children of all ages up to 20 being the most seriously neglected group.

Negroes are not receiving their share of the service according to the membership dues that they are paying.

The lowest income group is not receiving its share of the service, those in the middle-income brackets receiving more.

The small white family is getting more care than any other size of family in either race.

This summary indicates the answer to the first question asked at the beginning of the study: Has the dental program achieved its purpose in dental care? The answer is "Yes" so far as the initial objective of emergency care is concerned. The answer is "No" so far as the next objective is concerned; that is, full care including preventive care, especially among children (except replacement work and orthodontia).

Why has this dental unit—and probably many others—not gone further in 5 years of operation? This brings up the second question originally proposed: What factors have assisted or prevented the full functioning of the program?

CULTURAL FACTORS AFFECTING THE DENTAL PROGRAM

The first and most important point is that the FSA dental program in this county—and in most counties—has made no changes in dental personnel, facilities, schedule of fees, or habits and conecpts of dental care. The only change is in the method by which the family pays for dental care.—For example, in this area many dentists and rural families alike have been unconcerned about decay in deciduous teeth; they point out that these teeth are shed anyway and they forget that a child may have to use a tooth for 4 or 5 years after it has started to decay. The children's mouth as well as the families' statements demonstrate that there has been little change of attitude or practice in this regard.

Within the dental program itself, the following factors are hindering its accomplishment of full care:

Lack of organization, absence of member and community responsibility. For an almost completely word-of-mouth organization, with its personal informal agreements (characteristic of local rural business relations as a whole), the health program here works with surprisingly little friction. However, if a change in local FSA personnel were to bring in people not so strongly interested in health as is the present staff, there would be no other administrative group to keep the program going, such as a members' board of directors. The present medical unit which is more complex, with more members and cooperating physicians, already shows the effect of lack of defined direction and responsibility—there is misunderstanding and dissatisfaction. The dental program has got along chiefly because it has been simple, not very many people have been involved in it, and the dentist who does most of the work for members has goodwill toward the FSA dental unit, rather than that its set-up is adequate and effective.

Lack of knowledge, and misinformation regarding the program.—The members' lack of knowledge (shown in interviews) of even such fundamentals as the dental services to which they are entitled demonstrates that the program has lacked both organization and a plan for informing and educating the membership. There is no written statement of administration and of services available to which members can refer. Members, physicians, and dentists individually ask county

supervisor, home supervisor, or trustee for specific information on the rules of the program, occasionally getting sincere but conflicting answers. The result is that when 41 sample families were interviewed, 26 could name only 2 of the 4 services provided: Extraction, filling, cleaning, and gum treatment. Only 3 families could name all 4 services, while 10 families knew 3 of the fundamental 4. This and other surprising ignorance of the program—for example, the basis of computing the family's membership fee or even the total amount of the family's own annual dues—represents merely the following:

(1) Lack of time and personnel for both organizational and health education of members.

(2) Unawareness of the necessity for continued information, after the initiation of the program (no group endeavor can be allowed to drift).

(3) Members' lack of previous experience with health services and accompanying low standard of health care.

To physicians and dentists, the people may sometimes seem demanding, but actually they do not expect full care because they do not know what it is, despite their urgent need for it. Also, the dentists, having all the work they want or can handle, do not encourage members to seek more than emergency service. Finally, the Negroes especially need information.

Lack of oral examination.—Since the members have not had oral examinations, neither the dentists nor the families know exactly what the families need, although after long practice in the county the dentists naturally have a fairly clear concepion of dental conditions among the farm families. The misfortune is that the people do not know. If they underestimate their need and do not ask for dental care, they can be satisfied at a low level of dental service. By comparing the family's statement of the dental and oral condition of each member with the examining dentist's report on each, the writers secured a fairly exact measure of the members' understanding of need. Of the 41 sample member families, 24 underestimated their children's need of dental care, 9 had an approximate knowledge, 1 family overestimated the need. (The remainder had no children.) In contrast, 29 families had an approximate knowledge of adults' needs, 8 families underestimated it, and 4 overestimated it.

These figures illustrate amazingly well what has been the actual practice: Dental care has been provided adults but not children. Also, although about the same number of Negroes and whites underestimated their children's dental needs, the Negroes had less clear knowledge of the condition of their adult members; and Negro adults actually have been getting less dental care than white adults. Oral examination should be made on entrance, not to eliminate any family, but to indicate to each family what should and can be done within the limits of the program. Of course, if the members sought all the care that they need, neither dental personnel nor funds would be adequate. The examinations still would be valuable, however, in gaging the requirements beyond the limits of the program.

Attitude of dentists and physicians.—Aside from their being hurried—especially now when there is a shortage of physicians and dentists—and perhaps occasionally brusque or condescending, their most significant attitude pertaining specifically to the FSA health program is that it is charity. Or at least that the professional service given is in part charity, even if not entirely so. Some of the members, especially those seeking to establish themselves in financial independence on a somewhat higher socio-economic level than their old one, quickly pick up this attitude. If all people in the dental unit knew that the dentists have received a high percentage payment on their bills submitted, undoubtedly no one would feel ashamed or even reluctant to receive or give service on this program. Through their misunderstanding of such terms as "simple fillings," which the program provides but which probably has never been explained to the members, and through rumors regarding treatment, some have come to think that dental service given FSA people is inferior. However, there is no objective evidence that the quality of the work is inferior.

Other influential attitudes pertain to type or extent of dental service, one of which—regarding care of deciduous teeth—has been mentioned. Two common beliefs of the area are maintained, perhaps unknowingly, by the dentists—that gum treatments are not worth while and even that fillings may not be worth while. It is true that treatments may be ineffectual, that a filling may fall out, or that a tooth may have to be extracted because of pyorrhea even when decay has been stopped by a filling. The local dentists, avowedly preferring extraction work, do not always give the arguments favorable to such protective services or give them convincingly. Perhaps discouraged by the poor dental conditions

that confront them, they take the easiest course, which is to extract the tooth—or all the teeth. When such assumptions, probably more common among rural than among town people, are reinforced by transportation difficulties of the family in getting to the dentist and by their great fear of dentistry, then the mere fact that such care is paid for and technically available is not enough to balance all the elements that are against any long process of care.

Outside the program itself, the following adverse factors seem to be operating:

Problems of transportation and communication.—With no telephone in any of the sample FSA homes visited and only 71 among all the 1,952 farm homes of the county (U. S. Census of Agriculture for 1940), the members have no way of making a dental appointment except by a special trip to the county seat. However, few tenant farmers have automobiles; some live too far from town to make many trips with a wagon and team of mules; the schedules on some of the local bus routes are inconvenient for farm people trying to keep an appointment; and neighbors cannot be depended upon to take a person to town at the right time. Moreover, the bus fares (or even the hiring of a neighbor's car which seems to be common practice here) necessary to take several children to the dentist and up to a total that looks big to a tenant farmer without much money in his pocket.

Both dentists reserve Saturday for extractions, given without appointment. For all other days, an appointment must be made. Therefore, to get a filling or treatment of the gums, the patient must go to town, make the appointment and return home, to wait 10 days or 2 weeks for the second trip to keep it, unless he is fortunate enough to get one later the same day. In this case, he waits around for many hours. People needing a series of treatments or extractions make a series of appointments weeks in advance. But the patient cannot notify the dentist in case anything prevents him from keeping the appointment. In this situation, either the dentist or the family is irritated before all the dental work is finished. The dentist can scarcely be blamed for preferring town clients or large landowners who have telephones in their farm homes.

Social factors.—Some of the influential factors have developed from or are now dependent upon economic status, although the eoconmic factor cannot be taken as the only fundamental element. After many years of living under the share-crop system, low-income farmers have lost or have never developed independence and initiative. The typical share cropper in the past has obtained dental care only when his landowner was willing to advance money to pay for it, the money being paid by the owner directly to the dentist and then charged against the cropper's harvest account. Naturally, little money for such "a" purpose was advanced and only when the toothache was severe. The small cash center could exercise initiative but seldom did, since he had to ask the dentist for credit. The share-crop system especially helps to explain why dentistry for poor rural people consists of extractions and rarely includes therapeutic and corrective services.

Actually three factors have limited dental care and still limit it, in the thinking and habits of the people: Low cash income; the custom of "settling up" in late November or December with little expenditure at any other time; and the low incentive to exercise initiative in getting dental care—in fact, an evident difficulty in getting it. Also, people who have grown up in share-crop families tend to look upon themselves as "poor folks;" they accept the implied low status and too often accept pain, continuous poor health, disfigured teeth, and similar disabilities as part of life. Now, however, their standards are rising slowly so they want the dental care—perhaps becoming ashamed of teeth that are "only snags"—but they still do not know how, or do not have the self-assurance, to go and get it.

Lack of education accompanies low social and economic status and presents further problems in health education and treatment. When families have low incomes and still do much hand cultivation, as they do here, the labor from an added pair of hands is important. Without any positive incentive to keep children in school, parents in these families, especially Negro families, tend to withdraw their children from school at about the seventh or eighth grade.

Psychological factors.—Apparently one of the reasons why the Randolph County dental unit has had a surplus of funds and its members have not sought all the service they had paid for and needed is fear. "Fear of the dentist" is part of the culture. Although the health of the rural people is generally poor, it does not follow that they are inured to pain. The "shakes," jumpiness, and other locally recognized sensations as well as organic ailments are talked about

constantly, making people apprehensive, making them anticipate and magnify suffering.

Moreover, they claim that men are more reluctant to go to the dentist than are the women, although the oral examinations did not show quite the difference between the sexes that people talk about. Male members of the program have only a little more tooth decay and not quite so many extractions and fillings as the women; but three times as many men as women do have advanced pyorrhea, needing full extractions. Although inadequate time to make all the necessary trips to the dental office, lack of money to buy the denture (not provided by the program), and fear of pain influence the men, other factors can be surmised also: Less concern about appearance, and self-consciousness among farmers when they deal with the professional man. It probably will take time, reassurance, and more active participation among the farm people before they will understand and take for granted the modern methods of dental care.

Poor health, inadequate home care, and lack of health education.—Among 22 of the 41 sample FSA families and 10 of the 20 non-FSA families, even a cursory interview revealed that father or mother or both had a chronic ailment, such as stomach ulcers, anemia, goiter, deafness, or rheumatism. When father and mother are sick, neither they nor the children are likely to organize their energies for a series of trips to the dentist. To get people on a higher level of energy and self-motivation, health education is needed. One of the greatest obstacles to the effective functioning of the health program here (and in many parts of rural America) is ignorance and misinformation regarding physiology and health. "High blood," "sugar liver," and "weak stomach" are terms covering a surprising variety of ailments and not necessarily referring to high-blood pressure or diabetes, for example. Even the cause of a deficiency disease so simply explained as the prevalent goiter of this area was not known by any of its sufferers who were interviewed.

Folk medicine and home remedies compete with professional medicine and organized health work. For example, faith doctors who cure principally by "talking out" the disease are resorted to by many farm people. In home treatment of toothache, kerosene and turpentine are favorite medicaments, although almost any other chemical that happens to be available may be used.

Adults do not brush their teeth regularly, although individual exceptions are found, especially among the women in some of the enterprising young Farm Ownership families. Teachers in both Negro and white schools urge the children to brush their teeth, and for good home dental care give them illustrated certificates which are distributed to the schools by a company that sells toothpaste. The idea of the certificate is good, although they should come from other than a commercial source, and it can be applied effectively in other aspects of health education.

Racial factors.—The following disabilities of the Negroes affect their participation in the FSA medical and dental programs:

Closer direction of Negro share croppers and renters by white landowners, so that they have had less experience in handling money and exercising their own judgment.

Smaller amount and probably poorer quality of schooling.

Less participation in county-wide organizations.

Fewer facilities among them for formal communication, such as telephones.

The following factors are favorable to this and even to an enlarged program:

Prepayment.—Group prepayment is not an entirely new development in Randolph culture. Group hiring of livestock auctioneer and veterinary, burial societies, and possibly other associations on an insurance basis have shown the people several forms of prepayment and group insurance. Although further teaching regarding the group prepayment principle is needed, this element of local rural life illustrates the following generalization that should be kept in mind in the planning of new programs: There are in any local situation some valuable predisposing factors that can be used as illustration and familiar starting point for a new thing.

County-wide and district organization.—Programs of the Coil Conservation Service, Rural Electrification Administration, and Farm Security Administration now are generally accepted among the people who especially need these services, although some of the large landowners apparently still think that the poorer Negro farmers are incapable of benefiting from Government assistance. Among the small farmers themselves, both white and Negro, there seems to the outside observer to be a surprising readiness to accept new programs and facilities, whether public or private. For example, a new privately financed quick-freeze locker plant is receiving good patronage. The common attitude is willing-

ness to try the new thing, although the people may be unwilling to struggle to maintain it and reorganize it if they later find that the original backers have been untrustworthy, or that the new program does not come up to their expectations, or that it conflicts with old habits in unexpected ways. In joining or in dropping out of a new association, the small farmers tend to be apathetic. They accept its formation and they accept its demise.

What they need is experience in organization that is at least county-wide and possibly larger. There have been associations of such geographic extent, but they have been leader-controlled. Since this is the local pattern, the program can start—as this one has—with strong leadership by one or a few people who are accustomed to be leaders. The FSA county supervisor has had this role in Randolph County. Next, interest and responsibility can spread out from such a person to perhaps younger and slightly less experienced leaders, and from them to their neighbors, and so on through the membership.

Recommendation and encouragement by people outside the dental program.—The physicians have done probably the most to encourage members to get dental care. Sometimes, however, they have recommended extraction of teeth because no satisfactory explanation of a case of arthritis, let us say, could be found, and it was decided to try taking out the patient's teeth. In other words, the theory of focal infection seems to have been overworked. In any case, the physicians have shown an appreciated good will toward the dental program. If they, like the dentists, sometimes have antagonized members, this occurred because they were expressing themselves as individuals rather than as responsible members of the program. They probably have not been made to feel enough official responsibility.

Unfortunately the public, especially the town people, know nothing about these medical and dental units. Apparently most low-income farmers who are not FSA borrowers have heard of FSA health units and look upon their members with some envy—a good indication of the need for such programs. However, they do not know exactly how they operate and what service they provide. Given the interest and good will, information can be given and accepted as needed.

Use of services that come to the farmer.—The local scene contains several things that would make dental trailers or movable units understandable and acceptable, if these ever were introduced. The best established institution is the "rolling store," a general store in a van. Another is the traveling library, but it has been discontinued recently. The children have become accustomed to regular visits of the county nurse to the schools, where she sets up a temporary clinic. Similarly, a dental unit set up in some permanent building for several days or weeks in first one neighborhood and then another would be accepted, provided other factors—such as confidence in the professional personnel and range of services—were satisfactory.

Also favoring the use of portable or self-propelled units are the habits of informal neighborhood communication which would notify people of the presence of the rolling dental office. Effective use could be made of the constant word-of-mouth communication, fostered by common laundry washing places near springs or wells, by Sunday afternoon home visiting and the Saturday visit to town, by congregation at the too-frequent wakes and buryings, and other natural gatherings.

Members' satisfaction.—Once a core of satisfaction has been created, it holds the program together, regardless of the dissatisfaction that may break away some individual families around the edges. Of the 41 member families interviewed (more than 30 of whom had joined in 1941 or 1942, and none less than a year before), 25 said they were satisfied with the dental program, 4 were definitely dissatisfied, and the remainder had particular reservations or doubts but were not thoroughly dissatisfied or antagonistic. It must be remembered, however, that even though more than half of the people who were questioned expressed satisfaction with the dental program, an even larger number at the same time lacked understanding of it. Although they may have been merely unwilling to criticize, it semes likely from the trend of their statements that they were actually satisfied with a limited service, that is, the service as they knew it. However, sponsors of the dental program can be proud of its general acceptance.

MEMBERS' AND DENTISTS' SUGGESTIONS

Families voluntarily suggested that the county very much needed more dental personnel and facilities. They indicated in indirect ways that they would like to have dentists who could give all their time to their practice and show greater care in it.

Members would like to have dentures added to the services provided by the program, and would be willing to pay more for more service. They could not pay much more, but the young families, especially, would not object to slightly higher membership fees.

Their reaction to various suggestions by the examining dentist—who, however, made no promises—is that mobile equipment would solve the very real time-and-transportation problem, except for emergencies. If the mobile unit happened to be somewhere at the other end of the county when a member of the family developed a bad toothache, it would be less useful than the standard dental office. (Of course, the reply is that if X-ray is included in the dental association service and if dental care is regular, the bad toothache or emergency is not likely to occur.)

Members and comparable nonmember farmers like the idea of the district medical center, which was discussed with a few of them. Through their proximity to Fort Benning with all its facilities, through hearsay of other large hospitals, and through their own experience at the prenatal clinic and other clinics maintained by the county health department, they have some idea of what a system of medical centers and outlying clinics would be like. They approve it on the assumption that it would be maintained by taxation.

The two participating dentists suggested that X-ray and dentures should be included in the services offered. They would welcome another dentist, and one of the dentists needs a dental hygienist. He is actually making plans to get an assistant to whom he can turn over some of his work.

CONCLUSIONS

Analysis of the data pertaining to this study shows clearly that there are weak, adequate, and strong elements which interplay in the present program. Each of these should be recalled in its proper relationships although for the purposes of a brief summary they are presented in somewhat arbitrary outline form.

It is strong in—

(1) Freeing the farmer from the uncertainty of obtaining credit for each dental service (he may now get a loan from FSA instead of his landlord but the amount is smaller and better distributed over the years, and he has more assurance of being able to pay it).

(2) Providing minimum dental care to some who would not receive any if not in the dental unit.

(3) Paying close to 100 percent of dental bills, although this should not be expected and would not be true if people received all the service they need.

(4) Having the good will of the dentists and most of the members.

The program is adequate in—

(1) Extractions for all elements of membership.

(2) Quality and kind of dental service given those who ask for it on their own initiative (but does not reach those who do not persist).

(3) It enrollment of eligible membership, which is higher than the State or National average, although still not so high as it could be.

The dental program of Randolph County is weak in—

(1) Limited scope of dental services provided.

(2) Organization and administration: No written agreement between dentists and association; no agreed fee schedule; poor record-keeping; insufficient number of dentists, which could be corrected partially by permitting dentists in adjoining counties to participate; no participation by members in policy making and administration.

(3) Dental service within the defined limits for: Children, Negroes; all ages in regard to protection against dental and oral diseases.

(4) Instruction of members regarding: Their own needs, which could be ascertained and made known in an entrance dental examination; the service provisions and organization of the program; dental care in general, especially home care, which can be secured among other means by cooperation with the division of dental health education, State department of public health.

Although administrative recommendations are not pertinent here, it can be stated that future planning and administrative changes—whatever form they may finally take—must attempt to eliminate four difficulties in rural dental care as it exists today in the Southeast and undoubtedly in many other areas of the United States; as follows:

(1) Deficiencies in professional dental personnel and facilities.

(2) Transportation and related problems of distribution of dental service.

(3) Inadequate local financial resources.
(4) Misunderstandings and inadequate education.

Much misconception of physiology, disease, and dental conditions; inexact knowledge—usually an underestimate—of own individual need; misunderstanding and fear of dental techniques and requirements; both inadequate knowledge and misunderstanding of group health programs.

IMPLICATIONS BEYOND RANDOLPH COUNTY

Every locality has some experience in group effort and organization and some experience in health care which can be made a familiar and acceptable starting point for any newly organized program. Seldom can a completely new plan be introduced into a community without friction or quickly enough to meet the existing health needs unless the plan's similarities to older customs are pointed out, the good will of older organizations and elements of the population is obtained, and the services offered are related specifically to the needs as the people see them, or can be brought to see them. The county of this study, in spite of certain outward backwardness in rural housing and sanitation, for example, nevertheless is receptive to new medical techniques and even to the group prepayment health plan. If the plan is adjusted to the people in regard to a few fundamentals of their local life, they will adjust surprisingly to the plan in other ways.

Not only can the program be strengthened and enlarged, it should be. This study shows that when a dental care program accepts the local system of health care exactly as found, making no new provision except method of payment, the service may not be any better or even have much wider coverage of the public than it had before the new program came. If the local care was inadequate before, for whatever reasons, it still can be inadequate. For example, if people have not seen in the past why children's devayed deciduous teeth should be filled, they will not immediately and automatically see this upon joining a dental service unit. Therefore, any sponsors of such a program who want to assure dental service to children must make sure that the local cooperating dentists have time and are willing to treat all the members' children; that the members know what their own children need, what the program can do for them, and why such service is important. If, besides the education needed to secure such understanding, there are provided more personnel, more funds, and better geographic distribution of services, then dental care for rural people will go beyond its present inadequate condition.

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